THE DETERMINANTS OF SHORT AND LONG TERM DEBT IN MALAYSIAN SMEs

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Abstract

The success of Small and Medium Enterprises (SMEs) industries, depending on the decisions relating to the capital structure, whether to choose a debt and/or equity. This paper analyses the capital structure focusing on the SME food and beverage services in Malaysia. To determine the capital structure of selected SMEs, regression analysis was performed with a focus on the financial performance of 80 companies in the food and beverage industry in Malaysia from the period 2009-2015.

In this paper, the ratio of long-term debt and short-term that is used to represent the capital structure as the dependent variable. Meanwhile, the size, profitability, growth, liquidity, asset tangibility, and age were used as independent variables. The results have confirmed that the SME business is in line with the pecking order theory but not in line with the Trade-off Theory. This study found that growth, liquidity, the tangibility of assets, and the age of the firm are key determinants of capital structure for financing SMEs either short term or long term.

Growth is negatively related to the short-term debts ratio. Meanwhile, liquidity is negatively related to the short-term debts ratio. In addition, this paper found that tangibility of assets associated with negative short-term and age was negatively on long-term debts ratio. This study also found that growth and liquidity have a positively related to long-term debts ratio. However, the size and profitability of firm do not affect the capital structure of SMEs.

Keywords: Capital structure, small and medium enterprises (SMEs), Malaysia

Abstrak

Kejayaan industri Perusahaan Kecil dan Sederhana (PKS), bergantung kepada keputusan yang berkaitan dengan struktur modal, sama ada untuk memilih hutang dan/atau ekuiti. Kajian ini menganalisis struktur modal syarikat dengan memberi tumpuan kepada perkhidmatan makanan dan minuman PKS di Malaysia. Untuk menentukan struktur modal PKS terpilih, analisis regresi dilakukan dengan memberi tumpuan kepada prestasi kewangan 80 syarikat dalam industri makanan dan minuman di Malaysia dari tempoh 2009-2015.

Dalam kertas ini, nisbah hutang jangka panjang dan jangka pendek yang digunakan untuk mewakili struktur modal sebagai pemboleh ubah bersandar. Sementara itu, saiz, keuntungan, pertumbuhan, kecairan, aset, dan umur telah digunakan sebagai pembolehubah bebas. Keputusan telah mengesahkan bahawa perniagaan PKS adalah selaras dengan teori pemilihan "Pecking Order" tetapi tidak selaras dengan Teori "Trade-off". Kajian ini mendapati pertumbuhan, kecairan tunai, aset, dan umur firma itu adalah penentu utama struktur modal untuk membiayai PKS sama ada dalam jangka pendek atau jangka panjang.

Pertumbuhan mempunyai hubungan yang negatif dengan nisbah hutang jangka pendek. Sementara itu, kecairan tunai adalah berhubungan negatif dengan nisbah hutang jangka pendek. Di samping itu, kertas kerja ini mendapati bahawa aset mempunyai hubungan yang negatif dengan jangka pendek dan umur mempunyai hubungan yang negatif dengan nisbah hutang jangka panjang. Kajian ini juga mendapati bahawa pertumbuhan dan kecairan mempunyai hubungan secara positif terhadap nisbah hutang jangka panjang. Walau bagaimanapun, saiz dan keuntungan firma tidak mempengaruhi struktur modal PKS.

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In the name of Allah most gracious most merciful

Praise be to Allah, the lord of the worlds. And the blessings and the peace be upon the last messenger of Allah, Mohammed (peace be upon him).

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CHAPTER 1
INTRODUCTION

1.1 Introduction

Capital structure is a combination of debt and equity. It refers to the composition of its capitalization and it includes all long term capital sources (loans, reserves, shares and bonds). Companies require a financing either on short or long term debt to develop their business operation because lack of internal financial resources. The management needs to set up the best policy of company's capital structure because it plays an important role for companies in pursuing the funding resources. Capital structure is important as a management tool to reflect firms' strategy and indicate the risk profile which leads to maximum value of the firm. Usually, the proprietors or stockholders determine the source of funding after recommendations and advice from the management.

Capital structure describes how the company allocates the profits between creditors and proprietors through the company financing their projects and programs to maintain a firm value. According to Ross, Westerfield, and Jaffe (2010), a firm should practice the debt to equity ratio to maintain the firm's value. The authors defined the value of a firm, V, as:

$$V = B + S$$

Where B is the market value of debt and S is the market value of equity. Capital structure can be measured by using Debt to Equity Ratio (DER). Debt to equity ratio shows the percentage of company financing that comes from creditors and investors.

Higher debt to equity ratio is considered riskier to creditors and investors than companies with a lower ratio. Debt to equity ratio is calculated by dividing total liabilities by total equity. The importance of capital structure not only on long term debt, it also focus on short term debt to raise the funding. This study explores both short and long term capital structure on Malaysian SMEs industries.

1.2 Background

Small and medium enterprises (SMEs) are important business entities in developing countries and have become an integral source of income for the Malaysian Economy especially in service sector industries. The service sector in Malaysia is one of the largest SME industries which contributes to the economic progress. SMEs attract inward investments in the country, either from the individual or corporate investors, which help the industries to quickly establish the industrialized status. This contribution plays a crucial role as Government intervention may further improve the economic potential of SMEs through the creation of new and diverse strategies, either from the policy makers or academicians. This will ensure that a greater development orientation significantly and balanced growth in the industry (McMahon, 2001).

SMEs also contribute in various areas such as an employment, import, export, and establishment a private sector. SMEs industries attract foreign investment and increase the number of national saving through job opportunities provided. SME industries employ technological advances in import and export activity to cut the operational cost, expand the business productivity, and improve profitability. Hence, the increased

foreign technology transfer also contributes towards the Malaysian economic progress through efficient SMEs.

In Malaysia, SMEs contribute to the national economy by increased small businesses each year in various sectors, whether in manufacturing, agriculture, mining and quarrying, construction, and services. The contribution of SME industries act as a stabilizer of growth during the economic slowdown. SME Annual Report 2014/2015 statistic shows that SMEs contribution 35.9% increased significantly on Gross Domestic Product, 65% of employment, and 17.8% of exports.

Generally, Malaysian companies especially SME's have good access to funding because the government and the financial institution contribute and support the industry, especially for services industries. Nevertheless, SMEs are limited with asset and do not have the necessary collateral to face the problem. The problems and challenges are due to the poor maintenance of financial records among SMEs. Mat Kila and Wan Mahmood (2008), state that inefficient financial decision made by finance firms may cause financial distress to the business. Therefore, in order to ensure SMEs as the engine of Malaysian growth and development, it is important to increase services sector's contribution against the Gross Domestic Product (GDP) and exports to provide better financing options and spur the growth of the domestic and international markets.

Datuk Seri Mustapa Mohamed, Minister of International Trade and Industry (MITI) was quoted in The Star newspaper dated 18 February 2014, "compared to 32% in 2012, the SMEs in Malaysia are on track to contribute 41% to the country's gross domestic product by 2020". The claim suggests that SMEs have the competitiveness and ability

to penetrate the export market through the exposure and skills obtained. The ability to penetrate export markets help firms determine the optimal capital structure of the company to pursue other business activities.

Saleh, A. S., & Ndubisi, N. O. (2006) state that Malaysian SMEs are concentrated in the textile and apparel, food and beverages, metals and metals products and wood and wood products sectors. Moreover, the food and beverage industry more stable in terms of employment and labor income due to the consistent demand for food and the competitive prices of raw commodities. Therefore, food and beverage industry is seen as having huge potential for future growth. However, this paper is only focusing on food and beverage industries that fall under SMEs, where their sales turnover is not exceeding RM50 million.

The capital structure of the SMEs differs with the large companies because SMEs firms provide a limited amount of information, especially the financial performance of the business. Based on Rajan and Zingales (1995), the large corporation, especially for public listed, tends to provide more information to the lender rather than the small business firms.

1.3 Problem Statement

Based on prior studies, such the work by Chaston, (1992); Gartner et. al. (2004); & Agnes W. Njeru et. al. (2002) have highlighted that the start-up and progress problems in the SMEs industries because of the difficulty in getting external financing. Insufficient funding is a critical element to the development of SMEs (Cook, 2001),

particularly in the operation section, as it is difficult to increase the firm's growth and expansion. Most SMEs obtained financial support from their family members or their own money at the start-up stage to fund the business operation (Hussain et al., 2006).

In facts, supports from external fund either from banks or financial institutions are needed due to the insufficient internal fund. Malaysian SMEs face difficulty in providing collateral to raise financing from the bank. In addition, the bank will normally offer financing for short-term duration. The relationships between the bankers and company reputation is very important to ensure the survival of SMEs as SMEs' growth is very dependent on the external financing provided by banks, financial institutions, or venture capitalists (Chittenden & Poutziouris, 1999; Nguyen & Ramachandran, 2006; Nakamura & Forte, 2013).

Based on statistics from SME Corp (2015), SME GDP growth was estimated at 6.4 per cent in 2013 and was expected to rise to 13.6 per cent in 2014. Hence, it can be seen that the small industries grow faster than large firms. According to Evan (1987), the small business industries may choose between two alternatives to have low leverage level, either by raising fund through retained earnings or external equity. Meanwhile, most previous literature explained the positive relationship between size and leverage level (Booth et al., 2001; Fama & French, 2002; Hovakimain, Opler, & Titman, 2001; Rajan & Zingales, 1995; Titman & Wessels, 1988). Faulkender and Petersen (2006) was the only one who found negative relationship between leverage and firm size on capital structure determinants.

Previous studies on public listed company show different relationship between asset tangibility, growth, size, risk, profitability, and tax to leverage despite using the same sector to determine the leverage of capital structure (Chechet, I. L., Garba, S. L., & Odudu, A. S. (2013); Gerardo et al. (2014); and Chen, J., Jiang, C., & Lin, Y. (2014). Keasey and Watson (1987) revealed that financial leverage is one of the causes towards insufficient fund for a company to run its business. They are found that large firms tend to practice more leverage compared to small business firms because large firms have more optimal capital compare to small firms to reduce a cost of operations. Base on the literature review, most study have been conducted on public listed company compare to SMEs services sector industry, thus this research can fulfil the existing gap by focusing on Malaysian Food and Beverage Service SMEs.

1.4 Research Questions

The aim of this study is to determine the capital structure of the SMEs in Malaysia, focusing on Food and Beverage Company. The research questions of this study are:

1. What are the factors that influence short term debt in Malaysian SMEs?
2. What are the factors that influence long term debt in Malaysian SMEs?

1.5 Research aim and objectives

The primary aim of this research is to determine the capital structure of the SME companies in Malaysia, focusing on Food and Beverage Company from 2009 to 2015. The specific research objectives are as follow;

The objectives of this research are:

1. To determine the factors that influence short term debt in Malaysian SMEs;
2. To determine the factors that influence long term debt in Malaysian SMEs.

1.6 The significance of study

This study contributes both to the theory and practice aspects. A few research were conducted on the financial practices among SME financing in general and Malaysia particular. This study will expand the existing literature and the new empirical evidence provided on Malaysian SMEs, especially on the capital structure. The investigation of factors influencing the capital structure was extended in this study to only focus on SMEs food and beverage industries.

The practical benefits of this study increase the understanding on financial practice among Malaysian SMEs, especially for manager in making better financing decision and give greater awareness of the factors affecting their funding decisions. This study also provides better understanding on what sources of financing should be referred and what factors influence the SMEs managers to make the right decision, either in short- and/or long-term financing option to optimize the firm's returns.

Food and beverage sector in SMEs industry widely improve every year (Sarkar & Costa, 2008). Through this research, it will give more awareness and understanding about food and beverage industries to efficiently manage the capital structure and systematically control the cost by utilizing firm characteristics as the factors influencing the capital structure and optimizing the operational cost.

Making the firm decision on capital structure, firm factors need to be considered because it involves the efficiency of the company's financial management and may affect the value of the firm. According to Tongkong (2012), the decision to determine the firm's capital structure is important because it will affect the value of the firms either in terms of cost management or inadequate capital. In order to overcome the potential management inefficiency, bankruptcy and business suspension, firms with high leverage need to reduce their costs by determining the optimal capital structure (Mat Kila & Wan Mahmood, 2008).

This study will enhance the understanding on the capital structure of SMEs in Malaysia and assist the policymakers in providing and improving the financing environment for SMEs especially for new start up business in small industry.

1.7 Scope and Limitations of the Study

Limitations of this study focus on the research conducted on the food and beverage services industry in Malaysia as services sector highly contributes to the economic growth and higher demand from many Asia countries (Aris, N. M., 2007). This is in comparison to most previous studies on the capital structure focusing on the small and medium enterprise. Based on readings, there was a lack of studies on capital structure in small medium enterprise sector in Malaysia (Ishaya Luka Chechet et al. (2013); Gerardo et al. (2014); and Chen, J., Jiang, C., & Lin, Y. (2014). Therefore, this study will focus on the capital structure of food and beverage service sector as a growing industry in Malaysia's service sector. In addition, the financial data are limited and only available through Companies Commission of Malaysia (SSM) because the

necessary data are not available online while the data for public listed company can be downloaded or viewed online in Bursa Malaysia webpage.

1.8 Organization of the Thesis

The thesis is structured as follows. Chapter One discusses the background of the study, research questions, objectives, significance of the study, and scope and limitation of the study. Chapter Two reviews the literature related to the study in order to develop a hypothesis for the research which is divided into three sections namely theoretical review and empirical review. Chapter Three discusses the research design, data and sample collection, variables selection and hypothesis development. Next, the fourth chapter discusses in detail the result and empirical findings to evaluate the acceptance or rejection of the hypothesis. Finally, Chapter Five discusses the conclusion and recommendation from the data analysis and recommendations for future research are pointed out.

CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

This chapter provides the review on firms' capital structure and determinants of capital structure. The chapter also discusses the relationship between the theories of capital structure in general. In addition, brief reviews of earlier studies on the capital structure were conducted to clarify the relationship between the capital structure and the determining factors for Malaysian SMEs industries.

2.2 Capital Structure

In order for a firm to grow its business activities and maximize its potentials, it needs to raise more capital either through the equity accumulation or debt financing. Normally, the capital structure in a company balance sheet will indicate the proportion of the common stock, preferred stock, and the debt instruments. The firms' debt, equity or hybrid securities, is a combination used to finance the firm's operation. It is also known as leverage when the debt and equity ratio is compared (Cortez & Susanto, 2012).

Handoo and Sharma (2014) stated that firms raise capital through equity to support business operation. Meanwhile, accumulating capital externally in the market requires firms to choose the best of capital structure instrument for the company's financial framework. Saarani, A. N., & Shahadan, F. (2013) defined capital structure as the basis

to understand the impact of a company's investments and expenses by separating debt and equity. The capital structure is an important factor in developing the business and maintaining the company's future operation by utilizing combined funds in the form of debt-to-equity ratio (Chechet, I. L., Garba, S. L., & Odudu, A. S., 2013).

Capital structure can be derived from the capital market circumstances, regardless the contribution is derived internally or externally via the capital market condition, company tax base, and other factors (John & Olagunju, 2013). Companies can also raise their business capital through debt or shareholders equity, as well as combining both factors to construct the firm capital structure. Capital structure is the combination of the different enterprise with the different equity securities where is the enterprise capital structure will get from the long-term financing whether of the market value of debt and equity (Gómez, G., Mena Rivas, A., & Lizarzaburu Bolaños, E. R., 2014).

For long-term financing to run business activities, firms often prefer to use debt, common stock and preferred stock. Chadha, S., and Shrma, A. K. (2015) described capital structure as a combination of debt and equity and mixed funding sources.

2.3 Capital Structure Theories

2.3.1 Modigliani and Miller (MM) capital structure theory

Capital structure has been a popular topic in finance after Modigliani and Miller conducted their research (Abdul Jamal et al., 2013). Hossain and Ali (2012) stated that Modigliani and Miller are the pioneers of study on capital structure in 1958 and

developed the MM theorem. According to Modigliani and Miller (1958), perfect market means the absence of taxes which will make the market more efficient and lower the transaction, bankruptcy, and agency cost; the firm's decision and capital structure are independent of the firm's market value and cost of capital. The MM model depends on arbitrage and borrowing on personal account. Abdul Jamal et al. (2013) stated three proposition by Modigliani and Miller in the MM theory, namely; i)s the firm's capital structure does not affect the market value and average cost of capital, ii) the firm's leverage does not affect the weighted cost of capital, and iii) the firm's value does not affect its dividend policy.

In 1963, corporate taxes were introduced into the existing model by Modigliani and Miller who found that capital structure can become relevant once the underlying assumption was relaxed. They affirmed that the firm's value does depend on the amount of debts employed by the firm and considered debt is a benefit associated with tax shield. In addition to the tax model of Modigliani and Miller (1963), Miller (1977) introduced personal taxes into the model (compared to previous corporate taxes inclusion). According to Miller (1977), firms may continue to utilize debt until the marginal investor's personal tax equals the corporate tax rate. Additional supply of debts may increase the interest rates until the tax advantages of the interest deduction are equalized by higher rates. However, small medium enterprise are not involved in corporate taxes. Only large company are often involved with taxes.

Myers and Majluf (1984) expended the MM theory by proposing that firms' reliance on internal funds at the beginning of the business. Firms with less information need to

use less debt capital as they encounter the problem and have high earning business. More recently, Modigliani and Miller's model for optimal pricing parameters of debts was rejected as it was regarded as limited (Ebrahim & Mathur, 2007). Other than that, individuals who are able to negotiate with lenders will also resort to Modigliani and Miller's arbitrage. Modigliani and Miller (1963) cited in Qiu and La (2010) emphasized that debt finance will increase the corporate value because debt interest is tax deductible while equity cost is not tax deductible.

2.3.2 Trade-Off Theory

The optimal capital structure consists of equity and debt that will maximize the value of the business as a whole and balance the costs of debt against the benefits of debt. Normally, the firm will finance both equities and debt through the trade-off theory concepts. However, trade-off theories explain that the firms are usually financed with debt and equity. If firms use debt for financing, firms will get the benefit on tax of debt and can optimize the firm's capital structure. The trade-off theory balances the benefits of debt to reduce the tax and cash flow problems with the cost of debt between shareholders for optimal capital structure (Seifert & Gonenc, 2008). Md. Faruk Hossain and Md. Ayub Ali (2012) stated that the firm can raise leverage to obtain tax benefits when reduced costs are expected financial problems. Hossain and Ali (2012) pointed out that when the probability bankruptcy equal to the excess use of the firm are encouraged to choose debt financing compared with equity.

Myers (1984) identified the trade-off theory and suggested that firm will increase the target debt ratio when firm has higher profitability. Higher tax saving from debt is also necessary for higher target debt ratio. In this case, the firm financial risk will decrease due to more debt to finance it business. Firms incurring an excess tax saving from debt financing will cause firms to increase their financial risks through debt financing from financial institutions (Kraus & Litzenberger, 1973). Hafizah Mat Nawi (2015) stated that company may allow debt ratio to deviate from what is stipulated in the business, and leverage and profitability showed a negative relationship since the firm collects profits and losses.

2.3.3 Pecking Order Theory

In 1961, Donalson suggested the Pecking Order Theory which was modified in 1984 by Myers. According to Donalson (1961), the firm acts according to predetermined priority to further enhance the company's financial needs through funds obtained from the company's internal resources. Simultaneously, firms also strive to reduce costs in order to avoid cost issue. Cost reduction is also considered as a strategy to improve the firm's financial performance.

The company's manager is more focused on internal funding because of the company's investment value. However, firm often choose debt leverage through external financing and equity as the last option (Myer, 1984). This theory states that firms prefer internal finance which is a less risky and valuation errors while minimizing cost. Henceforth, Abdul Jamal et al. (2013) suggested the use of internal financing for risk control and

cost minimization purposes. Internally generated fund will not cause any cost issue towards the company. However, when the external financing arises, firms will issue the safest security first. Normally, profitability will increase by using the pecking order theory including debt and retained earnings, but the choice would also increase the firm's cost.

2.3.4 Agency Cost Theory

Agency cost theory was developed by Jensen and Meckling (1976) which explains the conflict between shareholder and management to reduce the common conflict of interest. Eventually, the issues may affect the capital structure of the firms. Agency theory problem between corporate managers is due to the different risk tolerance as shareholders and managers are in conflict with regards to the acceptable risk level. Consequently, Jensen (1986) explained that most managers invest the firm's resources in some projects to enhance their personal benefits rather than maximizing the firm value because of the separation between firms' ownership and control.

The theory also explains that decisions made by the company executive cannot be verified by the shareholders because of different attitudes towards risk. The theory supposedly explains the relationship between shareholder and company executive in resolving the existing problem in the agency relationship. In conducting studies using the agency costs theory, some control variables and various indicators of leverage were used in measuring the firm performance to control the conflict of interest between principal (shareholders) and agent (manager). Varun Dawar (2014), Grossman and Hart

(1982), and Williams (1987) stated that agency cost can be reduced by increasing the leverage level and encourage the managers to act more towards the interests of the equity holders to increases firm's value. Agency cost is also known as cost of debt.

2.4 Empirical Studies on Determinant of Capital Structure

Most of international studies focus on large industries and public listed company. Huang, S. G., and Song, F. M. (2002) studied Chinese listed company, Anil Ramjee Tendai Gwatidzo (2012) studied firms listed on the Johannesburg Stock Exchange in South Africa; Gómez, G., Mena Rivas, A., & Lizarzaburu Bolaños, E. R., (2014) focused on non-financial companies listed on the Stock Exchange of Lima in Peru, while Chen, J., Jiang, C., and Lin, Y. (2014) determined firms' capital structure in China by using non-financial firms listed on the Chinese stock exchanges.

Huang and Song (2002) studied the characteristic of 1000 Chinese listed companies from 1994 to 2000, indicating an increasing leverage in parallel with firm size and non-debt tax shields. However, the leverage level decreases with increased profitability. The findings showed that large sized firm tend to increase the level of leverage and decrease its growth opportunities and non-debt tax shields. The result of profitability is also in line with the static trade-off models. However, a few study on the determinant of capital structure on listed company including the stock exchange indicated different relationships between asset tangibility, growth, size, risk, profitability, and tax to leverage; despite using the same sector to determine the leverage level in their capital

structure (Anil Ramjee, Tendai & Gwatidzo (2012), Ishaya Luka Chechet et al. (2013), Gerardo et al. (2014), and Chen, Jiang & Lin (2014).

Chadha, S., and Shrma, A. K. (2015) studied the determinants of capital structure for 422 Indian manufacturing companies listed companies on Bombay Stock Exchange for 10 years period. Their results showed that size, growth, and profitability had significant negative relationship with leverage, while firm profitability is negatively related with leverage. A negative relationship shows one unit increase in profitability will reduce the level of firm leverage equivalent to ß value of -.65 while the t-value was -5.56 ($p<.00$) which was more than the maximum value for significant t-value. It can be said that firm with small size will decrease the level of leverage. However, growth of SMEs have significant effect on their capital structure with ß value of -.04 and $p<.00$. The result of tangibility was positively significant with the financial leverage, where ß was 1.63 while the $p<.00$. Hence, probability and size are regarded as in line with the pecking order theory while tangibility and growth are in line with the tradeoff theory. Liquidity of SMEs does not have any significant effect on their capital structure.

Asteriou et al. (2004) investigated the capital structure of manufacturing firm in Greek and found that the major determinant of capital structure is profitability which focuses on size group. The study also encouraged the role of government policy to help SMEs to improve the capital structure of Greek manufacturing firms. From the regression analysis, the study showed that size significantly and positively correlated to total debt where the ß value was .073 while the correlation to total asset was at ß .071. Meanwhile, profitability is correlated to both total debt and long-term debt. Similarly, a few studies

on SMEs capital structure found positive relationship between firm sizes and long-term- and short-term debt (Titman & Wessels, 1988 and Mira, 2005). It showed that the result focused more on debt and support the notion that large SMEs better obtain the financing from bank. The result is also in line with pecking order theory.

In Malaysia, most studies use the public listed company on Bursa Malaysia (Abdul Jamal et al. (2016); Wahab, R. A., Amin, M. S. M., & Yusop, K. (2012). Abdul Jamal et al. (2016) aimed to determine the factors influencing the capital structure decisions in Malaysia using the companies listed on the FTSE Bursa Malaysia Top 100 Index for the years 2007 to 2011. Their results showed that profitability, tangibility, and liquidity had significant negative relationship with leverage level, while firm size was positively related with leverage as one unit increase in profitability will decrease leverage by -.486 while the t value of -5.49 ($p<.01$) is significant as it is more than the maximum value for t . This result is similar with the findings by Deesomsak *et al.* 2004 who investigated the capital structure in Thailand, Malaysia, Singapore and Australia. The result showed positive effect of firm size on leverage, while growth opportunity, non-debt tax shield, and liquidity excrete negative effect on leverage.

Wahab, R. A., Amin, M. S. M., & Yusop, A. K. (2012) aimed to investigate the capital structure of 10 public listed Malaysian property developers from 2001 to 2010, categorizing the sample into two groups namely the top five developers and bottom five developers. The result showed that profitability had positive relationship with leverage at ß of 1.312 and tangibility with ß value of .299. The result are significant in explaining the variation in leverage for the top five developers, while non-debt tax shield, growth

opportunity, and liquidity are insignificant in explaining the variation in leverage of the top five developers. Firms are encouraged to rely more on debt financing for tax shields benefits on interest payment, which is consistent with the trade-off theory. NDTS and growth of SMEs have insignificant negative relationships with leverage.

A few studies on SME industries where conducted by Saarani, A. N., and Shahadan, F. (2013); Njeru, A. W., Namusonge, G. S., and Kihoro, J. M. (2012); Zélia Serrasqueiro (2011) and Nikolaos Daskalakis et al. (2014). In general, it shows that most of the studies focus on public listed company compared to small medium enterprise company. In Malaysia, only a few authors studied the capital structure of SMEs industries. Some of the studies in relation to SMEs and capital structure include Nguyen and Ramachandran (2006) who identified the determinants of SMEs capital structure. The results showed that SMEs employed mostly short-term liabilities to finance their business activities. The capital structure of SMEs is positively related to business risk and firm size, but negatively related to tangibility and profitability. This is supported by the findings which indicated that large sized firms tend to increases their level of leverage, where ß is .585 and significant at p> .00. Similarly, increase in business risk will increase the level of leverage in the SMEs with ß equals to .123 which is significant at p> 0.00. However, the finding shows that increase in profitability will reduce the level of SME leverage, where ß is -.113 which is significant at, p> .001 percent. The result of profitability is also in line with the pecking order theory. Furthermore, a reduction in SME tangibility will the increase the level of leverage, where ß is -.078 which is significant at, p> .030. Growth of SMEs does not have any significant effect on their capital structure.

Additionally, Saarani, A. N., and Shahadan, F. (2013) analysis on Malaysian SMEs' capital structure focused on enterprise (E50) SMEs. The study used 334 companies as the sample from 2005 to 2009. The result shows that the capital structure of SMEs is negatively related to tangibility, liquidity, and profitability, but statistically significant with the total debt ratio and short-term debt ratio. However, tangible asset is positively significant with the long-term debt ratio with ß of .0275 which is significant at $p<.001$, while liquidity is positively significant with ß of .011 which is significant at $p<.01$. The research also found that size is important for short- and long-term financing. Age and growth are important influential factors for long-term debt. This finding contradicts with Nikolas et al. (2014) who found that the amount of debt issue is not influenced by firm's size and it also does not influence the relationship between other variable and debt usage of different firm.

Zabri, S. M. (2012) investigated the determinants of capital structure among Malaysian SMEs. The sample ran from 1998 to 2010 within the list of Enterprise 50 award winners. From the analysis, the result found that liquidity, tangibility, and non-debt tax shields (NDTS) have significant relationship with the firm's capital structure. The result shows that tangibility with ß .321 is significant at $p<.000$ for debt ratio, while increasing asset tangibility will also increase the firm's debt ratio. Other than that, NDTS is negatively significant with STDR with ß -.395 and LTDR with ß -.04468 significant at $p<.000$. The increasing tax shield from other sources of debt will reduce the debt financing in the firms. The result also shows the negative correlation between firm's debt-equity ratio with liquidity at ß -.0220 which is significant at, $p<.014$, in addition to the positive significant result on NDTS with ß .374 which is significant at $p<.000$.

Meanwhile, increasing liquidity level will reduce the use of debt financing in firms as reflected by lower DER. On the other hand, firm's capital structures are not significantly predictable by firm's age, size, profitability, and growth.

In summary, the essence of the capital structure model follows a few previous studies against the explanatory variables and the firm's capital structure theory.

AUTHORS	EXPLANATORY VARIABLE USED							RESEARCH SECTOR	THEORY USED
	IV						DV		
	SIZE	*PROF*	*GRO*	*LIA*	*ASSET*	*AGE*	*LEV*		
Zélia Serrasqueiro, (2011)	√	√	√	-	√	√	ST LT	Services & Manufacturing firm	Pecking Order theory and Trade-off Theory
D. Asteriou et al. (2004)	√	√	√	-	√	-	TA ST LT	Manufacturing firm	Pecking Order theory
Oladele John AKINYOMI and Adebayo OLAGUNJU (2013)	√	√	√	-	√	-	TL	Manufacturing firm	Pecking Order theory and Trade-off Theory
S. Kiran (2013)	√	√	√	-	√	-	DEBT	Textile, chemical, fuel and energy	Pecking Order theory and Trade-off Theory
A. Gill, N. Biger, C. Pai and S. Bhutani (2009)	√	√	√	-	-	-	TL/TA	service industry owner/operators and managers	Pecking Order theory
N. A. Sheikh and Z. Wang (2006)	√	√	√	√	√	-	DEBT RATIO	Manufacturing firm	Pecking Order theory, Trade-off Theory, Agency Theory & free cash flow
S. M. Zabri (2012)	√	√	√	√	√	√	DR STDR LTDR DER	Listed firm in Nigeria Stock Exchange	Pecking Order theory and Trade-off Theory
Jean J. Chen (2004)	√	√	√	-	√	-	TD TA LT	Public listed company	Pecking Order theory and Trade-off Theory
H. A. Khrawish and A. H. A. Khraiwesh (2010)	√	√	-	-	√	-	LTD/TD	listed industrial companies	-
P. K. Oppong-Boakye, K. O. Appiah and J. K. Afolabi (2013)	√	√	√	-	√	-	DEBT RATIO	Listed and Non Listed company	Pecking Order theory and Agency Cost Theory

CHAPTER 3
RESEARCH METHOD

3.1 Introduction

The previous chapter explains the theory of capital structure as the determinants to evaluate business performance effect. This chapter will discuss more extensively on the developed hypothesis and the appropriate data analysis. The following determinants of capital structure considered in this study are; profitability, size, growth, liquidity, asset tangibility, and firm age. The description in this chapter is applicable with the research framework and research design of the study. The discussions are also associated with data collection and data analysis procedures, in which the data collection approach is discussed in detail.

3.2 Conceptual framework

The conceptual framework was developed based on the gaps identified in the literature, specifically those related to capital structure determinants among SMEs. This study uses short term debt (STD) and long term debt (LTD) as the dependent variable and firm characteristics (profitability, size, growth opportunity, liquidity, asset tangibility, and age) as the independent variable to determine the firm's capital structure in SMEs industries mainly focusing on food and service sector.

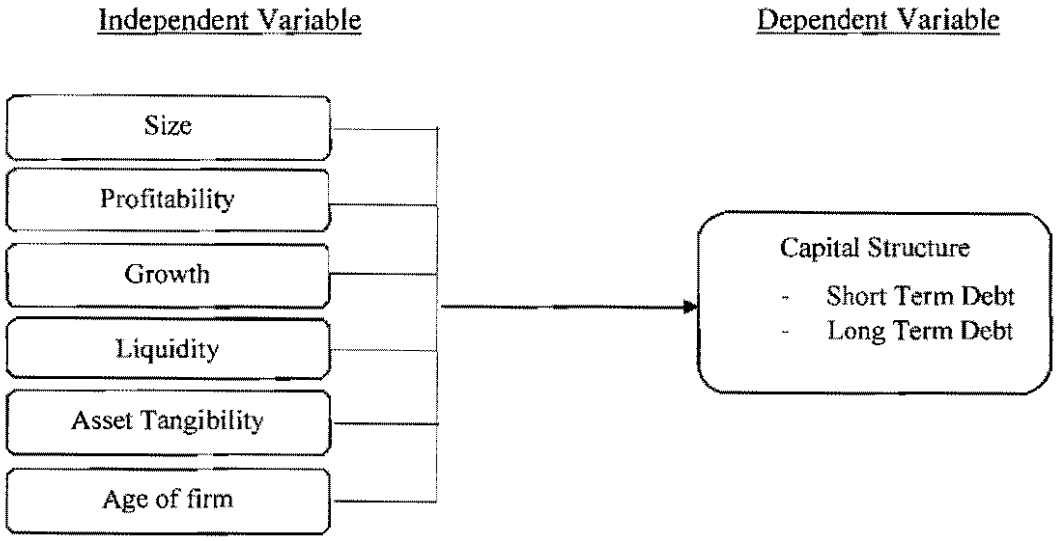

Figure 3.1
Research Framework

3.2.1 Dependent variable

Capital structure is the combination of different equity securities from long-term financing, whether the market value of debt and equity is financed by shares or debt securities (Bolanos, 2014). It is also known as a combination between debt and equity, mixture of source funding described as capital structure (Sharma, 2015). Additionally, many researchers used leverage as a proxy for capital structure (Rajan & Zingales, 2008). Hence, this study use a short term debt and long term debt as the proxy on dependent variable for capital structure for Malaysia's SMEs in food and beverage sector.

3.2.2 Independent variable

Independent variable is a predictor variable which test the effect on the dependent variable. An independent variable is a measurable characteristic that influences or

explains the dependent variables. Hair et al. (2006) also stated that an independent variable is a proxy that try to understand, explain, and/or predictive the ability by other independent variables in the equation. Firm specific factor is widely used as independent variable to determine the capital structure in SMEs Malaysia industry. In this study, profitability, size, growth opportunity, liquidity, asset structure, and firm age are used to determine the factors influencing the capital structure in food and service sector under SMEs industry in Malaysia. Abdul Jamal et al. (2013) stated that firm-specific factors were limited to specific industry because different sectors have different firm characteristics. As the result, the findings from previous studies cannot be used to represent the overall SMEs sector.

3.3 Hypotheses Development

3.3.1 Firm Size and Short Term Debt and Long Term Debt

This research used firm size to determine the food and beverage services sector in Malaysia under SMEs industries. Size is one of the common factors used by other researchers that determine the capital structure of a company (Md-Yusuf, M., Yunus, F. M., & Suppat, M. (2013). Berggren, Olofsson and Silver (2000) defined size in a number of ways including number of employees as a proxy to the variables. Chen (2014) used the natural logarithm of total assets as a proxy for firm size. However, the theoretical relationship between size and leverage is still unclear. According to the trade-off model, large firms are expected to have higher debt capacity and capable to be more highly geared. Large firms are more diversified, thus less exposed to the risk of bankruptcy. Deesomsak, R., Paudyal, K. and Pescetto, G. (2004) mentioned that firm

size is measured by the natural log of assets on their analysis of capital structure determinant. Firm size is expected to have positive impact on the capital structure and large sized companies have lower probability of bankruptcy (Rajan & Zingales, 1995).

H1: There is a negative relationship between the sizes of SMEs on the short term debt.

H2: There is a positive relationship between the sizes of SMEs on the long term debt.

3.3.2 Firm Profitability and Short Term Debt and Long term Debt

Trade-off theory provides an exposition of the benefits of prudent debt use. However, the debt ratio used for solution variable is the proportion of debt in the firm's capital structure which negatively affects the company. Cortez and Susanto (2012) stated that profitable companies should incur more debt finance and obtain high level of debt capacity through the trade-off theory model to avoid wasting their cash free flows. On the other hand, Pecking Order Theory emphasizes that profitability will indicate the level of cash by using the retained earnings compared to external debt finance to avoid risk. Firm's profitability is an important determinant of its capital structure and it will affect the firms' retained earnings. Hence, the study showed a negative relationship between profitability and leverage because firms preferred to generate internal fund for their investments compared to external funds. However, the firms may resort to more equity financing if they happen to experience insufficient funds (Fattouh & Harris, 2003). Therefore, this theory predicts a negative relationship between profitability and debt ratio (Myers, 1984).

H3: There is negative relationship between the profitability and short term debt.

H4: There is positive relationship between the profitability and long term debt.

3.3.3 Firm Growth and Short Term Debt and Long term Debt

Growth refers to the investment opportunity or project that has the potential to grow significantly. The opportunity for the company to extend and improve their business operations is through new investment consumption known as business growth (Md-Yusuf, M., Yunus, F. M., & Suppat, M., 2013). Pandey (2001) stated that growth opportunity represents intangible assets owned by a company which have no collateral value. This study will look at the intangible asset as a potential to grow the business significantly and lower the required debt. According to the trade-off theory, Md-Yusuf, M., Yunus, F. M., and Suppat, M. (2013) stated that companies are less likely to borrow if the company has better future growth opportunity compared to companies with more tangible assets. However, other researchers stated that growth opportunity is any capital asset that can add value to the company and cannot be used as collateral (Titman and Wessels, 1998). However, Michaelas, N., Chittenden, F., and Poutziouris, P. (1999) claimed a positive relationship between growth and short-term debt. Therefore, the relationship between growth opportunity and debt level are positive and the growth will be measured as a percentage change of total asset (Titman & Wessels, 1988). Titman & Wessels (1988) and Michaelas, N., Chittenden, F., and Poutziouris, P. (1999) used intangible assets over total assets by dividing the factors to measure the growth variable.

H5: There is a positive relationship between the growth opportunity and short term debt.

H6: There is a negative relationship between the growth opportunity and long term debt.

3.3.4 Firm Liquidity and Short Term Debt and Long term Debt

Liquidity is the ability to quickly convert assets into cash without compromising the value of the assets. It means how quickly you can get your cash when you need it. Md-Yusuf, M., Yunus, F. M., & Suppat, M., (2013) stated that the ability to convert assets into cash without affecting the assets' price is regarded as the companies' liquidity. In accordance to the trade-off theory model, company should borrow more to meet the contractual obligations on time when the companies have high quality assets. The liquidity measurement is taken as the current assets divided by current liabilities. Liquidity addresses the sufficiency of a stock of high quality liquid assets to meet short-term liquidity needs under a specified acute stress scenario. Kila and Mansor (2009) stated that the relationship between a liquidity and capital structure needed to be considered in the view that liquidity has significant impact on debt ratios. Brealey and Myers (1988) and Okzan (2001) argued a negative relationship between the liquidity and capital structure. Thus, pecking order theory stated that liquidity and debt level has negative relationship (Abdul Jamal et al, 2013). Henceforth, this study proposed the following hypotheses:

H7: There is a negative relationship between the liquidity and short term debt.

H8: There is a positive relationship between the liquidity and long term debt.

3.3.5 Asset Tangibility and Short Term Debt and Long term Debt

Plants, buildings, machineries, and vehicles referred to tangible assets which are usually operated to maximize the sales revenue. Meanwhile, intangible assets are used as

supportive assets to strengthen the company's position which refers to goodwill, patent, and technology (Md-Yusuf, M., Yunus, F. M., & Suppat, M., 2013). Asset tangibility can be easily liquidated and converted to cash, and company with the largest tangible assets faces less bankruptcy risk. Deesomsak, R., Paudyal, K. and Pescetto, G. (2004) stated liquidity value can be increased by asset tangibility or decreased by bankruptcy. Capital structure tests on active and inactive firms from COMPUSTAT in the U.S. between year 1984 and 1996 revealed a strong positive relation between the usual proxy for asset tangibility and firm leverage (Campello & Giambona, 2010). The authors also found that tangibility is one of the single most important drivers of leverage when the variables are compared on the basis of reduced-form estimates of economic impact. Asset Tangibility is measured as fixed assets divided by total assets, in order to see the relationship between the variables (Abdul Jamal et al, 2013).

H9: There is a positive relationship between the asset tangibility and short term debt.

H10: There is a positive relationship between the asset tangibility and long term debt.

3.3.6 Firm Age and Short Term Debt and Long term Debt

Age of business running is an important part to determine firm's capital structure. Other researchers used firms' age as a fundamental in the research of capital structure (Bhaird, 2010). Firm age can clarify how long the business operation starts the incorporation date of the business or starting the business. Financial institutions always evaluate the reliability and reputation of SMEs over time when providing loan. Hence, age of firm is one of the factors that will emphasize the value of the company in the financial summary; either the company is an experienced or a new business. Age of a business

operation is related to business life cycle, while developing or maturing business are used as a proxy to get hold of various funds (Berger & Udell, 1998). In this study, the firm age variable is measured by the number of years the SMEs companies have been in the food and beverage business operation by looking at the date of the registration until the year of 2014 (Abor, 2007; Esperança, Gama, & Gulamhussen, 2003; Ramlall, 2009). Thus, the following hypotheses are proposed to test the age factor:

H11: There is a positive relationship between the age of firms and the short term debt.

H12: There is a negative relationship between the age of firms and the long term debt.

3.4 Research Design

This study examines and analyzes the relationship between short term and long term debt and firm characteristics performing the regression analysis as a guide to answer the research question.

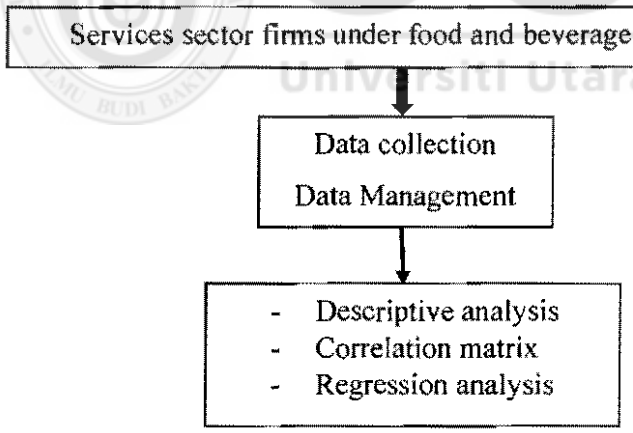

Figure 3.2
Research Design

Choosing the right research design is dependent on the research questions and objectives of the research (Hair et al., 2007). The secondary data from SME

Corporation and panel data from SSM were collected to complete the analysis. Later, the study used the descriptive analysis techniques, followed by the correlation matrix and regression to test whether firm-specific factors (profitability, firm size, growth opportunity, asset structure, liquidity, and age of firm) in food and beverage industries in Malaysia are positively or negatively related with leverage level. In order to achieve the objectives of the research, the relationship between the variables will be linked to the theory as well as produce a study relationship model.

3.5 Data and Sample Selection

3.5.1 Sampling

The sample for this study was selected from the SMEs operating in Malaysia. The sample for the preliminary study consisted of the list from SME Corporation which focuses on various food and beverage services sector firm in Malaysia. Hence, systematic sampling research was conducted to examine the relationship between capital structure and firms' characteristics. This study uses more than five years financial reports from 2009-2015 as the research sample.

3.5.2 Data Collection Instruments

The secondary data were collected by using the SME Corporation database and SSM. Emails were used to obtain the data from SME Corporation in the form of the list of all registered companies under the food and beverage services sector in Malaysia. The data of these 361 SMEs were gleaned and provided by the SME Corporation. Afterwards, the company list was used to get further information about the financial, incorporation,

and others related information from Companies Commission of Malaysia. However, only 80 listed companies are active SMEs. The Company Registration Commissions provided further information about the summary of the companies' financial status from 2009 until 2015.

3.5.3 Data Processing and Analysis

This study analyzed the collected data by using quantitative techniques which involves processing and analyzing the obtained secondary data using the Pearson coefficient and multiple regressions analysis conducted using Statistical Package for Social Sciences (SPSS) version 22. The analysis will be presented by means of descriptive statistics such as tables, graphs, and others.

Data analysis for this study start with data cleaning for anomalies (extreme numbers), to avoid Type I error. Although eliminating anomalies would cause lesser observation, nevertheless, it is needed to provide a firm results.

Md-Yusuf *et al.* (2013) claimed that descriptive statistical will summarize all the data sets into brief descriptive coefficients of the data given. The descriptive statistics will be used to describe a set of data in the research. This study used descriptive statistics to describe the basic characteristics of the data and provide summary of the relevant tools and measures in a manageable form (Social Research Methods, 2006). Descriptive statistics are used in this research to analysis the value and relationship of firm's characteristic of the dependent (*STD and LTD*) and independent variables (*PROF, SIZE, GROWTH, TANG, LIQ* and *AGE*).

It will also be supported by Pearson correlation to test the relationship between the two variables (Greener, 2008). Pearson Correlation analysis will determine how significant the relationship between the two variables and the sign of correlation coefficient shows either the positive or the negative relationship between the variables (Zou, K. H., Tuncalli, K., & Sliverman, S. G., 2003).

However, this study used the multiple regression analysis to determine the strength of the relationship between two variables. The significant variables are determined using the t-value of each independent variables from the regression analysis (Saunders, Lewis, & Thornhill, 2009). Multiple regression analysis helps to predict the value of Y for the given values of X1, X2... Xk. In general, the multiple regression equation of Y on X1, X2... Xk is given by:

$$Y = b_0 + b_1 X_1 + b_2 X_2 + \ldots\ldots\ldots\ldots\ldots + bk\ Xk \quad \text{(eq. 1)}$$

The Multiple Regression equation was developed in this study to predict the dependent variable by using the independent variables, written as:

$$\textit{Capital Structure (STD)} = \beta_0 + \beta_1 SIZEi + \beta_2 PROF + \beta_3 GROi + \beta_4 LIQi + \beta_5 TANGi + \beta_6 AGEi + Ui$$

$$\textit{Capital Structure (LTD)} = \beta_0 + \beta_1 SIZEi + \beta_2 PROF + \beta_3 GROi + \beta_4 LIQi + \beta_5 TANGi + \beta_6 AGEi + Ui$$

Where the variables are denoted as:

β_0 = Model's Intercept

β_1 = Firm Size; derived from natural logarithm of total assets.

β_2 = Profitability; derived from net profit scaled by total Assets.

β_3 = Growth Opportunity; derive from percentage change in total assets.

β_4 = Liquidity; by current assets divided by current liabilities.

β_5 = Asset Tangibility; derived from ratio of fixed assets to total assets.

$\beta 6$ = Age; derived from the number of years since the firms were incorporated.

Ui = error term of firm *i*

Table 3.3
Variables Descriptions and Expected Signs

Variables	Description	Expected Signs	
		Short Term Debt	Long Term Debt
Leverage	Total debt ratio scaled by Total Debts/Total Assets (Harris and Raviv, (1991); Rajan and Zingales, 1995); Seifert and Goyal (2003); Mira (2002); Nguyen and Ramachandran (2006); Psillaki and Dasklakis (2007).	-	-
Size	Derive from natural logarithm of total assets (Sogorb-Mira, 2003; Titman & Wessels, 1988; Ramanho and Silva, 2009; Abor and Biekpe, 2007; Ortqvist et al., 2006; Barros et al., 2013; Saarani and Shahadan, 2013).	-ve	+ve
Profitability	Derive from net profit scaled by total Assets (Abor, 2007; Saarani and Shahadan, 2013 and Ramlall, 2009).	-ve	+ve
Growth	Percentage change in total assets (Titman & Wessels, 1988; Chittenden et al., 1996, Nguyen and Ramachandran, 2006; Degryse et al., 2012).	+ve	-ve
Liquidity	Derive from current assets divided by current liabilities (Damodaran, 2001; Brighi and Terluccio, 2006).	-ve	+ve
Asset Tangibility	Derive from fixed assets scale total assets (Abor, 2007; Esperança, Gama, & Gulamhussen, 2003; Nguyen and Ramachandran (2006); Ramlall, 2009; Daskalakis and Psillaki, 2008).	+ve	+ve
Age	Derive from the number of years since firms was incorporated (Hall et al, 2004, Esperança, Gama, & Gulamhussen, 2003; Abor and Biekpe, 2009; Ramalho and da Silva, 2009; Ortqvist et al. 2006).	+ve	-ve

CHAPTER 4
RESULTS AND DISCUSSION

4.1 Descriptive Statistics of Capital Structure and the Determinant Factors

In Table 4.1, descriptive statistics of dependent and independent variables are presented for the period of 2009 to 2015. Based on this table, the result shows that the average ratio for short-term debts and long-term debts over total assets are 69.4% and 45.4% respectively. In this paper, it shows that the most important financing source for SME firms is debts, and particularly in short-term debts is over than the long-term debt in SME financing. Nguyen and Ramachandran (2006), N. Daskalakis and M. Psillaki (2008), and Ali Uyar Mustafa Kemal Guzelyurt (2015) revealed that the needs of short-term financing behavior crucial for SMEs, it could be due to the insufficient internal funds to finance their production cost and very clear that the financial sources from network play a relatively important role in SMEs capital structure. This is in support of the SMEs behavior which is in line with the Pecking Order Theory.

Table 4.1

Descriptive Statistics of Dependent and Independent (Explanatory) Variables

Variable		N	Minimum	Maximum	Mean	SD
Dependent	% Short Term Debt	292	0.0000	0.9997	0.6944	0.2549
	% Long Term Debt	308	0.1120	0.9974	0.4538	0.2465
Independent	Log Norm Size	444	0.6931	17.4988	12.6626	2.7161
	Profitability	437	-43.7000	5.3546	-0.1348	2.4684
	Growth	292	-47.6876	49.4611	2.1598	17.7691
	Liquidity	431	0.1147	47.5911	2.3166	4.9186
	Asset Tangibility	401	0.0000	2.1333	0.5273	0.2707
	Firm Age	409	1.0000	50.0000	11.3500	9.8270

As shown in Table 4.1, the average age of the companies under study is about 11 years. Therefore, the companies experienced enough to balance their capital structure. The mean size measured by log normal of total assets is 12.66 or equivalent to RM5 million. With respect to growth, result also shows that the SMEs have strong asset tangibility which is represented over 52.7 % of total assets value. According to Zabri, S. M. (2013), revealed that the asset tangibility is an important factor in making decisions regarding a firm's financing with both short term and long term debt. The firm with high level of fixed assets can be pledged as a collateral to secure debt financing and the less probability of the default payment. In term of liquidity, food industry SMEs have the sufficiency of 231.66% to meet is short term obligation. In considering the growth of food and beverage service sector, it represents 215.98% of asset growth, which is considered as fast growing industries.

4.2 Correlation

In the following Table 4.2 shows the correlation matrix between the dependent and independent variables to examine the possible collinearity. From the correlations analysis, most of the variables are significantly correlated and indirectly correction coefficient for many pairs of the variable is weak. The highest value of 0.304 was found to indicate the correlation between AGE and SIZE in the study of determinants of firm's capital structure. However, there are two pairs that show a moderate correlation. The first pair is STD and TANG which showed a negative correlation coefficient of −0.248, and the second pair is LTD and AGE with also a negative correlation coefficient of −0.230. Since the correlations are relatively low between -1 to +1, it is shown that no

significant level of multicollinearity problem between independent variables in this test and thus all the variables can be taken into the subsequent regression analysis.

Table 4.2

Correlation Matrix

	STD	LTD	Ln SIZE	PROF	GRO	LIQ	TANG	AGE
STD	1							
LRD	-.476**	1						
Ln SIZE	0.085	-0.109	1					
PROF	.140*	-0.088	.177**	1				
GRO	-.161*	0.104	0.087	.123*	1			
LIQ	-.119*	.166**	-0.063	0.027	-0.03	1		
TANG	-.248**	.115*	-0.058	-0.027	0.006	-.212**	1	
AGE	.176**	-.230**	.304**	0.02	0.028	0.049	-0.037	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

4.3 Regression

Table 4.3 presents the results of regression analysis, consideration as the key determinant factors that are influence the capital structure of Malaysia SMEs focusing on food and beverage industries. Regarding to the effect of determinants on short term debt and long term debt, the results found that all models are statistically significant at the 1% level.

Table 4.3

Regression Result

Independent Variable	Dependent Variable	
	STD	LTD
Constant	0.826	0.453
	(7.790)***	(4.169)***
SIZE	0.002	-0.002
	-0.229	(-0.260)
PROF	-0.005	-0.026
	(-0.149)	(-0.887)
GRO	-0.002	0.002
	(-2.789)**	(2.050)*
LIQ	-0.026	0.029
	(-2.651)**	(3.858)***
TANG	-0.246	0.072
	(-3.831)***	-1.083
AGE	0.003	-0.006
	-1.632	(-2.864)**
Adjusted R-Squared	0.12	0.096
F-(p-value)	5.522 (.000)	4.756 (.000)
D. Watsons	1.744	1.588
No. of Observation	292	308

Note: Absolute value of t-statistic in parentheses, asterisks denote level of significant *p<0.05; **p<0.01; ***p<0.001.

For the short term debt, the variables in this study has managed to get $R^2 = 12\%$. This model have F-value = 5.522 and $P < 0.001$. Meanwhile for the long term debt, although the variables in this study are significant but R^2 is lesser which is only 9.6%. However, these two result suggest that this model is both strong and can be used for analysis.

From the comparison with the purpose hypothesis, the direction of relationship and significance between capital structure variable and debt ratio are presented in Table 4.4. The result from regression analysis found the most of the variable have a positive relationship between a short-term debt and long-term debt. Liquidity and asset

tangibility have a positive significant for long-term debt at 1% level and negative significant for short-term debt.

Table 4.4

Relationship between the Determinants and Short Term Debt and Long Term Debt

Independent Variable (The Determinants)	Dependent Variable (Debt Ratio) STD Result	LTD Result
SIZE	+ve not significant	-ve not significant
PROFITABILITY	-ve not significant	-ve not significant
GROWTH	-ve **significant**	+ve **significant**
LIQUIDITY	-ve **significant**	+ve **significant**
ASSET TANGIBILITY	-ve **significant**	+ve not significant
AGE	+ve not significant	-ve **significant**

From Table 4.4 it is shown that size and profitability did not correspond with the proposed hypothesis and the relationship is also not significant. In order of the Pecking Order Theory and Trade of Theory, growth and liquidity is important factor determinants influencing leverage.

The analyses of each variable are as follows:

4.3.1 Size

Hypothesis 1 suggests that size has a negative relationship with the short term debt ratio. Most of the previous papers have considered size as factors that affect the leverage

of the firm because they found a positive relationship between the leverage (Booth et al., 2001). However, size is tested in this paper to confirm it and the data analysis in table 4.3 reveals at the result are not a significant and positive relationship between size in short-term debt ratio, with the standardized $\beta = 0.002$ and p-value equal to 0.819 ($p>0.05$). Hence hypothesis 1 is rejected. This result can be explained as one unit increase in firm size will increase 0.819 usages of short-term debt in the capital structure.

Smaller companies are likely to be considered riskier by investors for lending long-term in this industries. Therefore, short-term financing is better for small size firms to avoid the bankruptcy of the company. Normally, a small size of company has a difficulty to extend their business operation because have less of capital from external sources.

Hypothesis 2 suggests that size has a positive relationship with the long-term debt ratio. The hypothesis is supported by previous research done by Michaelas et al. (1999), Mac an Bhaird and Lucey (2006), Sogorb-Mira (2005) and Saarani, A. N., & Shahadan, F. (2013). The result not supported the hypothesis 2, with a negative relationship with p-value equal to 0.795 ($p>0.05$). Hence hypothesis 2 also rejected. These study explains that Trade-off Theory are in line with this results.

Firm will choose a long term debt when they increase the firm size because by increasing the firm size will tend to high transaction cost, so they are preferred to get a benefit of an interest rate on their long term debt. However, larger firms usually have

diversified portfolios and they are also less likely to face bankruptcy than smaller firms (Wanzenried, 2002).

Hence, the result does not reveal any significant result for short-term debt and long-term debt. This shows that size has no impact on debt financing because a small firm has influenced by internal sources. They will prefer for long-term debt when increasing their firm size because of the higher transactions cost with the debt financing charge. When SMEs increase in size, they would prefer long-term financing because of higher transactions cost associated with the financing package. Mostly, large firms have a steady earnings which support them to manage high debt ratio and they prefer to use external financing compare to internal financing. Larger firms have easier access to engage with the external financing rather than the small firm because of the probability of lower default payment. Therefore, the company which has a greater firm size has more funding from the financial institution (Reportella and Mwrtinez, 2003).

4.3.2 Profitability

Hypothesis 3 shows that profits have a negative correlation with the ratio of short-term debt. This hypothesis is supported by previous studies conducted by Rajan and Zingales (1995) and they have found that the negative profit related to leverage. The results in this paper indicate that no significant negative correlation between profits and the ratio of short-term debt, with $\beta = -0.005$ and p-value equal to 0.882. Thus hypothesis 3 is acceptable.

These results suggest that highly profitable firms will reduce short-term debt in the capital structure. In contrast, external financing is needed if companies have less profit. Referring Frank & Goyal, (2003) and Michaelas et.al. (1999), the negative relationship between profitability and debt ratios are in line with the pecking order theory. Hence, food and beverage industries shows that company have less profitability and they are prefer on short term debt to get more capital on firms operation. For short-term debt, the repayment period is short, usually within one year. However, a firm's profitability are reinvested in their business to remaining a business operation.

Hypothesis 4 suggests that profitability has a positive relationship between the profitability and long term debt. Analysis of empirical data provides the result for hypothesis 4 and show a negative relationship between profitability and long-term debt. Hence hypothesis 4 rejected. These results can be explained as a more profitable are preferred internal financing on their capital structure.

Firm will choose a long term debt when company have a high profitability, but in this study the result are negatively with the profitability, mean they were use the long term debt to increase their tax shields, and profitable companies may also have excessive risk that may make it difficult for SMEs industries to raise debt capital. Firm will use a long-term debt to avoid the risk of bankruptcy and be able to repay the loan without a default payment.

Profitability SMEs firms will use less debt ratio whether short-term or long-term debt to control the firm from any invasion by foreign investors.

4.3.3 Growth

Hypothesis 5 suggests that growth has a positive relationship with the short-term debt ratio. Analysis of empirical data provides support for Hypothesis 5 with a significant negative relationship with the standardized β -0.002 and p-value equal to 0.006 ($p<0.01$). Hence there is significant relationship between growth and short term debt ratio. Hypothesis 5 is rejected. Normally, small firms has a lack of sufficient fund to generate internally, hence external sources of funding are needed.

Firm has a negative relationship with a short term debt. Mean, the amount of loan on short term debt normally not much to cover business operation, and this will decrease a firm growth in future. If company have a lack of sufficient fund to generate internally, this could cause the company's dissolve the business operating in the initial period of business set up.

Hypothesis 6 suggests that growth has a negative relationship with the long-term debt ratio. The data analysis of empirical data revealed that growth has the different effect on long term debt ratio. The result not support hypothesis 6, with the standardized β = 0.002 and p-value equal to 0.042 ($p>0.05$). Hence, hypothesis 6 is rejected.

The results show a growth has a positive relationship with a long term debt. That Means, the longer of period loan is approved, the increasing a growth of the firm. Since firms have a large amount of loan capital from the bank, they will get the benefit of the lowest

interest. In addition, it encourages the firm opened a new branch of the company because of no repayment time constraints for the loan applied.

However, both of analysis shows that is a significant relationship between growth and debt ratio. This result confirms that growth are effected on short term or long term debt and they preferred long term debt compare to short term debt to growth the firms. However, the previous study by Abor and Biekpe (2009) found that a positive relationship between growth and long term debt ratio. Those SMEs which is operate the growth as a factor to get more capital, they need to use more external sources compare to internal financing. This result in line with the Pecking Order Theory. Mean, SMEs firm are required external financing as a business supporting when the growth opportunities was increased.

4.3.4 Liquidity

Hypothesis 7 suggests that liquidity has a negative relationship with the short term debt ratio. The previous paper have considered liquidity as factors that affect the leverage of the firm because they found a significant negatively related to the leverage (Ramalho & da Silva, 2009). However, liquidity is tested in this paper to confirm it and the data analysis in table 4.3 reveals at the result are significant and significant negative relationship between liquidity in short-term debt ratio, with the standardized $\beta = -0.026$ and p-value equal to 0.009 ($p<0.01$). Hence hypothesis 7 can be accepted. This result can be explained as firms with the higher liquidity ratios is greeter ability to meet short term obligations and firm will use a liquidity to finance their investments.

Cash is a company's lifeblood. Organization has cash to meet immediate short-term obligations and firms with more liquidity have the ability to quickly convert an investment portfolio to cash with little or no loss in value for their business operation. Increase in the firm's level of liquidity are easily a company can meet its current obligations because company has the resources on hand to meet its obligations and is less likely to borrow money or enter bankruptcy. It also enable firm's to use a more debt on their business operation either from bank or investor.

Hypothesis 8 suggests that liquidity has a positive relationship with the long-term debt ratio. The hypothesis is supported by previous research done by Anderson (2002) reveal the positive relationship between liquidity and long term debt. The result has supported the hypothesis 8, with a positive relationship $\beta = 0.029$ and p-value equal to 0.000 ($p<0.001$). Hence hypothesis 8 is accepted.

For a long term debt, firms are prefer to use bank financing to increase the liquidity of firms by quickly. It can avoid the liquidity risk of firms because they can change the asset to cash and have good net earnings through the investment activity. Due to liquidity risk, investors should consider whether they can cover their short-term debt obligations into cash before investing in long-term illiquid assets.

Liquidity may have the impact on capital structure decision. Firm with high liquidity will used a short term debt and will borrow less. They preferred to use an internal sources compare to firm with low liquidity will focus more to external financing with

a long term debt. However in this result shows that a significantly related for short term and long term debt, so SMEs firm will consider to use either internal sources by creating liquid reserves from retained earning predicted by the Pecking Order Theory or use an external sources of financing for their capital structure but it will become more costly.

4.3.5 Asset Tangibility

The hypothesis 9 suggests that asset tangibility has a positive relationship with the short-term debt ratio. This hypothesis is supported by previous research done by Rajan and Zingales, (1995) and Abor and Biekpe (2009). The result in this paper indicates a negative relationship between asset tangibility and short term debt ratio with the standardized β = -0.246 and p-value equal to 0.000 ($p<0.001$). Hence hypothesis 9 is rejected. This result can be explained as one unit increase in firm asset tangibility will increase 0.246 usages of short-term debt in the capital structure.

Firms prefer to self-finance their investment, although they have more access to bank funds with a greater proportion of tangible assets. Tangibility asset is important for start up the business. This indicates that as the tangibility of firm decrease, become to lower leverage and tend to lower debt. Hence, they prefer to short term internal financing compared to external financing, especially for early business operations firms.

Hypothesis 10 suggests that asset tangibility has a significant positive relationship with the long-term debt ratio. Chen (2004) has supported a positive correlation between asset tangibility and long term debt ratio and confirmed that the asset tangibility will affect

the level of debts in the firms. Hypothesis 10 is supported by the standardized $\beta = 0.072$ and p-value equal to 0.280. Hence hypothesis 10 can be accepted.

Firms with more assets and more collateral have fewer obstacles in receiving debt. Firms with the more tangible the asset mix is the higher the long-term debt ratio, but the smaller the total-debt ratio. They are required to provide more valuable collateral, rather than concentrating on accounting information for their financing because of the higher financing monitoring costs.

A stronger asset tangibility can raise a higher level of firm's debt and the more tangible asset, the higher debt ratio on long term situation. Asset tangibility is related to the cost of distress which is firm with a few tangible assets would have a greater asymmetric information problem and become more debt over time. However, firms with higher tangible asset have a stable source of income and their payments default is less.

4.3.6 Age of Firm

Hypothesis 11 suggests that age has a positive relationship with the short term debt ratio. Most of the literature do not consider age as one of the factors that affect the leverage of the firm. However, this paper test age as a factor to confirm it. The data analysis in table 4.3 reveals a positive relationship between age and short term debt ratio, with the standardized $\beta = 0.003$ and p-value equal to 0.104. The result can be explained as one unit increase in firm age for food and beverage industry will increase 0.003 usage of short term debt in the capital structure. Hence hypothesis 11 are

accepted. The result also shows that age of firms is very important in influencing the SMEs on debt financing. Abor and Biekpe (2009) found a positive relationship between age and of firms with debt ratio. SMEs with older firms is easy to access debt compared to newer firms because they have a good track record to solve the issue of asymmetric information, at the same time they present with the good credit history.

Age of firm will affect a business in securing loans for short term debt. For companies which are starting a business for the first year, they are more vulnerable to short-term loans with the lower loan amount. They are difficult to obtain bank financing due to the poor financial records. Usually, a family member will support them by giving some money as a capital for continuing the business.

Hypothesis 12 suggests that age has a negative relationship with the long term debt ratio. However, the analysis of empirical data revealed that age has the same effect on long term debt ratio. The result has supported the hypothesis 12, negative relationship with the standardized $\beta = -0.006$ and p-value equal to 0.005 ($p<0.05$). Hence hypothesis 12 are accept. The significant β confirm that age has an impact on the long term debt. This result supported by Esparanca and Gama (2003) to suggest that firm age influences the long term debt.

Company with a long incorporation in the business, for example, a company that was incorporated more than 10 years, they are easier to obtain long-term debt. However, they are also difficult to obtain the loans if the bank reviews the past of loan repayments. A poor repayment for the previous loan will affect firms to obtain additional capital for

their businesses in future. However, firms with a good repayment record follow the agreement, it will be easier for the bank to approve the financing with a higher amount than previously. This can help firms to expand their business growth.

From this analysis, the result can be interpreted the older and more experienced firm require less external financing because they are more generate internal financing within the context of the Pecking Order Theory, whereby they prefer short term debt more rather than long term debt. In conclusion, age is not a major problem in getting the loan in Malaysia because SME Corporation have played a role in helping SMEs firms to get the fund for their business.

Table 4.5
Analysis Results Summary

Variables	Expected Sign	Results	Expected Sign	Results
	Short Term Debt	Short Term Debt	Long Term Debt	Long Term Debt
Leverage	-	-	-	-
Size	-ve	+ve	+ve	-ve
Profitability	-ve	-ve	+ve	-ve
Growth	+ve	-ve	-ve	+ve
Liquidity	-ve	-ve	+ve	+ve
Asset Tangibility	+ve	-ve	+ve	+ve
Age	+ve	+ve	-ve	-ve

CHAPTER 5
CONCLUSION AND RECOMMENDATION

5.1 Conclusion

This study investigated the determinants which is influence the capital structure of Malaysia food and beverage SMEs industry over the period of 2009 to 2015. This paper has applied data regression for the sample of 80 SMEs, focusing in food and beverage industry in Malaysia. The result of the empirical analysis provides evidence on the relationship significance of the regression coefficient of the six capital structure determinants, over the time in order to address both research objectives. Two issues are identified and investigated in this paper to explain the determinants of short and long term debt focusing on food and beverage Malaysian SMEs.

First, the objectives of this research are to determine the factors that influence short term debt in Malaysian SMEs. The findings in this paper suggest growth, liquidity, and asset tangibility to be the main factors influence the short term debt for SMEs. Growth, liquidity, asset tangibility and age are likely the major determinants which influence the capital structure decision, either short or long term financing. Meanwhile, size and profitability do not influence the capital structure of the SMEs. Liquidity has a significant positive relationship with the long term debts. The results show that the low liquidity of SMEs food and beverage industry will focus more to long term debt through external financing. Meanwhile, liquidity has a significant negative relationship with the short term debts. Therefore, the need of financing is lesser as they prefer to use their

internal funds rather than external financing on this industry by creating liquid reserves from retained earnings.

The findings of this paper have shown that asset tangibility has a significant relationship between short term debt and not significant with long term debt. Firms with higher tangible asset have a stable source of income and their payments default is less. Meanwhile, asset tangibility may reduce the agency cost and asymmetric information cost which is can avoid the rejected of the bank financing. Therefore, banks or financial institutions commonly will prepare the financing for them without a doubtful.

Secondly, this paper has confirmed that the growth, liquidity and firm age are major characteristic influence the long term debt on SMEs in Malaysia. SMEs which is operate the growth as a factor to get more capital, they need to use more external sources compare to internal financing. A firm with higher liquidity ratios is greater ability to meet short-term obligations and firm will use a liquidity to finance their investments. Firm age also influences the capital structure of SMEs in Malaysia because the older and more experienced firm require less external financing because they are more generate internal financing. Most of the factor was influence the capital structure but only three reveals the significant result from the analysis for short and long term debt financing.

5.2 Recommendation

This paper provides some implications for the SMEs manager to help the economic growth. Manager should explore more to financial policies and need to recognize that

asymmetric information is the crucial issue in getting the loan to ensure stable economic growth. SMEs manager should disclosing well-prepared financial statement by increasing the transparent on their financial statement in order to build up the level of trust by banks. The availability and reliability of financial data was a major limitation in this paper.

This paper also offers some important implications for the policy-makers in Malaysia because they have to recognize the existence of a different group of SMEs within general classifications. Although the government intervention helps SMEs grow and expand their business, but policy-makers should control the amount of financing given. The reason is to avoid misuse of the facilities given as well as the potential of bankruptcy. However, a new knowledge will provide a new input for policy makers to assist the Malaysian SMEs by developing a suitable and appropriate financing facilities and in providing better financing products.

Lastly, these research only focus on Malaysian food and beverage industry. Potentially, future studies can be developed in other sectors by incorporate various industries effect into consideration. SMEs industries have their own specific characteristics to determine their capital structure in their respective industries. Moreover, the future study can be developed with a performs the comparative study of the Malaysian situation on capital structure characteristics among SMEs in other the developing countries such as the Asian countries in order to explore differences in terms of financing and other contributory factors.

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APPENDICES

Appendix A: Sample Data List of Companies

BIL.	COMPANY NO.	ANGKA UJI	COMPANY NAME	INCORPORATION DATE
1	6220	P	HOCK HIN BRICK WORKS SDN BHD.	09/11/1965
2	35710	X	AUN TONG SDN. BHD.	16/11/1977
3	67010	X	DARO CONSTRUCTION SDN. BHD.	28/01/1981
4	73712	H	SYDNEY CAKE HOUSE SDN BHD	29/07/1981
5	78769	U	THOMYAM FOOD INDUSTRIES SDN. BHD.	04/12/1981
6	82436	D	HUTAMI AUTO SERVICE SDN. BHD.	17/03/1982
7	128516	T	JIMAT JAYA SDN. BHD	09/10/1984
8	178020	D	PURPLE CANE ENTERPRISE SDN. BHD.	19/01/1989
9	181977	W	KHONG KEE FOOD INDUSTRY SDN. BHD.	16/05/1989
10	214701	H	ER MEKATRON SDN. BHD.	28/03/1991
11	232356	H	DELUXE RICH SDN. BHD.	13/01/1992
12	256225	W	AURA CREST (M) SDN. BHD.	14/01/1993
13	334144	T	SYARIKAT TANDANG SARI SDN. BHD.	20/02/1995
14	335842	M	S.P. YAM HUAT SDN. BHD.	14/03/1995
15	336536	P	SAWOUL TRADING & AGENCY SDN. BHD.	18/03/1995
16	366888	V	KALUI (SABAH) SENDIRIAN BERHAD	13/11/1995
17	379855	P	ENG LEE SENG MARKETING HOLDINGS (M) SDN. B	15/03/1996
18	395852	X	BUN HOONG FOOD INDUSTRY SDN. BHD.	26/07/1996
19	433038	A	WORLD PROMINENCE SDN. BHD.	27/05/1997
20	437334	P	GREENWELL ESTERS SDN. BHD.	01/07/1997
21	512797	W	LA DELIGHT PASTRY & BAKERY SDN. BHD.	27/04/2000
22	515229	W	VEDABLU SDN. BHD.	26/05/2000
23	517804	T	XKL RESOURCES SDN. BHD.	22/06/2000
24	519089	D	FRONTIER FOOD INDUSTRIES SDN. BHD.	05/07/2000
25	557796	M	SHAHIRAH INDUSTRY SDN. BHD.	30/08/2001
26	587085	A	XKL WORLDWIDE SDN. BHD.	23/07/2002
27	603925	W	SAJIRIA SDN. BHD.	17/01/2003
28	644351	V	CITARASA UNIQ SDN. BHD.	03/03/2004
29	646248	P	SELAPIS MUTIARA SDN. BHD.	22/03/2004
30	668610	M	SEREMBAN BURGER SDN. BHD.	07/10/2004
31	672656	M	KEPALA BATAS BIHUN SDN. BHD.	23/11/2004
32	701003	V	ROSFANIAGA SERVICES SDN. BHD.	25/06/2005
33	702023	V	SAGANA FLOUR MILL (M) SDN. BHD.	06/07/2005
34	712935	W	LOKE KEE BISCUITS AND CAKE SHOP SDN. BHD.	17/10/2005
35	721452	M	NATURAL WELLNESS HOLDINGS (M) SDN. BHD.	18/01/2006

BIL.	COMPANY NO.	ANGKA UJI	COMPANY NAME	INCORPORATION DATE
36	742604	V	RINARS SDN. BHD.	28/07/2006
37	749844	V	YEON FOOD INDUSTRIES SDN. BHD.	09/10/2006
38	753350	P	ANAK JASA (M) SDN. BHD.	16/11/2006
39	753856	W	CASAMIA CONFECTIONERIES SDN. BHD.	21/11/2006
40	754594	P	RUDYZ ENTERPRISE SDN. BHD.	28/11/2006
41	755009	K	CHB ICE SDN. BHD.	01/12/2006
42	764824	X	ROSLAN FOOD INDUSTRIES SDN. BHD.	07/03/2007
43	770962	T	C.V.S. FRESH VEGETABLE SDN. BHD.	25/04/2007
44	794437	X	BOOGALOO MUSIC PUBLISHING SDN. BHD.	05/11/2007
45	800090	T	ACE FRONT INDUSTRIES SDN. BHD.	19/12/2007
46	804340	K	KULIM PRO-TECH ENGINEERING SDN. BHD.	25/01/2008
47	810987	H	EQUINOX SQUARE SDN. BHD.	25/03/2008
48	812346	A	WONDER MOMENTS SDN. BHD.	03/04/2008
49	826691	X	SITI AMANAH FOOD INDUSTRIES SDN. BHD.	24/07/2008
50	828268	D	IGLOOL SDN. BHD.	08/08/2008
51	837359	P	OLSOKAN SDN. BHD.	04/11/2008
52	839902	V	NASRIN RESOURCES SDN. BHD.	27/11/2008
53	842053	K	IDEAL FLAVOURS SDN. BHD.	19/12/2008
54	846230	T	AERIES PURE BIRD NEST (M) SDN. BHD.	10/02/2009
55	849980	A	SMART FOOD VENTURE NETWORKING SDN. BHD.	16/03/2009
56	867864	A	ENAQ SAUCE SDN. BHD.	11/08/2009
57	846783	U	MUTIARA JUTAMAS SDN. BHD.	16/02/2009
58	848281	P	KREATIF IRIS SDN. BHD.	02/03/2009
59	849334	P	LA BEST BAKERY SDN. BHD.	10/03/2009
60	855874	D	DELIZIOSI AMORE SDN. BHD.	06/05/2009
61	860892	K	DAMARA CARE & HERBS SDN. BHD.	16/06/2009
62	865928	W	LEVERAGE BUSINESS SDN. BHD.	24/07/2009
63	868198	U	YII GUO FOODS INDUSTRIES SDN. BHD.	12/08/2009
64	870009	T	DAGANG ENGINEERING (M) SDN. BHD.	26/08/2009
65	870551	U	ALGA PRIMA SDN. BHD.	01/09/2009
66	882039	A	GRAND PLATTERS SDN. BHD.	09/12/2009
67	892252	H	PANDA RICE SDN BHD	09/03/2010
68	892309	D	TERANG BULAN FOOD INDUSTRIES (M) SDN. BHD.	09/03/2010
69	901864	V	LAQY (M) SDN. BHD.	21/05/2010
70	927554	W	RESTORAN WILLIAM'S CRAB (MINES) SDN. BHD.	29/12/2010

BIL.	COMPANY NO.	ANGKA UJI	COMPANY NAME	INCORPORATION DATE
71	933533	W	WAN GROUP INDUSTRY (M) SDN. BHD.	23/02/2011
72	936128	V	INTAN BIOTECH INDUSTRIES SDN. BHD.	14/03/2011
73	942440	H	SWEET FARM ASIA SDN. BHD.	27/04/2011
74	947677	V	SIN YOON LOONG WHITE COFFEE SDN. BHD.	08/06/2011
75	955603	V	FARAULAH CAKE AND CAFE SDN. BHD.	03/08/2011
76	957487	T	QURBA FOOD MANUFACTURING SDN. BHD.	17/08/2011
77	980613	K	SUCI HARUMATIQUES SDN. BHD.	02/03/2012
78	1032859	M	AYNUF SDN. BHD.	25/01/2013
79	1064640	K	BIOFRESH WELLNESS SDN. BHD.	02/10/2013
80	1101735	K	SC FOOD INDUSTRIES SDN. BHD.	16/07/2014

Appendix B: SPSS Result

```
DESCRIPTIVES VARIABLES=STD LTD lnSize Profitability Growth Liquidity
Asset_Tan Age
  /STATISTICS=MEAN STDDEV MIN MAX.
```

Descriptives

Notes

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	Cases Used	All non-missing data are used.
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Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Short Term Debt	292	.0000	.9997	.694374	.2549243
Long Term Debt	308	.1120	.9974	.453805	.2464787
Log Norm Size	444	.6931	17.4988	12.662591	2.7160534
Profitability	437	-43.7000	5.3546	-.134750	2.4684183

Growth	292	-47.6876	49.4611	2.159800	17.7690901
Liquidity	431	.1147	47.5911	2.316626	4.9186184
Asset Tangibility	401	.0000	2.1333	.527265	.2706672
Firm Age	409	1	50	11.35	9.827
Valid N (listwise)	194				

```
CORRELATIONS
  /VARIABLES=STD LTD lnSize Profitability Growth Liquidity Asset_Tan
Age
  /PRINT=TWOTAIL NOSIG
  /MISSING=PAIRWISE.
```

Correlations

Notes

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	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
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Correlations

		Short Term Debt	Long Term Debt	Log Norm Size
Short Term Debt	Pearson Correlation	1	-.476**	.085
	Sig. (2-tailed)		.000	.146
	N	292	275	291
Long Term Debt	Pearson Correlation	-.476**	1	-.109
	Sig. (2-tailed)	.000		.055
	N	275	308	307
Log Norm Size	Pearson Correlation	.085	-.109	1
	Sig. (2-tailed)	.146	.055	
	N	291	307	444
Profitability	Pearson Correlation	.140*	-.088	.177**
	Sig. (2-tailed)	.017	.127	.000
	N	289	303	436
Growth	Pearson Correlation	-.161*	.104	.087
	Sig. (2-tailed)	.021	.125	.141
	N	206	218	291
Liquidity	Pearson Correlation	-.119*	.166**	-.063
	Sig. (2-tailed)	.043	.004	.190
	N	288	307	430
Asset Tangibility	Pearson Correlation	-.248**	.115*	-.058
	Sig. (2-tailed)	.000	.044	.246
	N	287	306	400
Firm Age	Pearson Correlation	.176**	-.230**	.304**
	Sig. (2-tailed)	.003	.000	.000
	N	276	292	408

Correlations

		Profitability	Growth	Liquidity	Asset Tangibility
Short Term Debt	Pearson Correlation	.140*	-.161*	-.119*	-.248**
	Sig. (2-tailed)	.017	.021	.043	.000
	N	289	206	288	287
Long Term Debt	Pearson Correlation	-.088	,104	.166**	.115*
	Sig. (2-tailed)	.127	,125	.004	.044
	N	303	218	307	306
Log Norm Size	Pearson Correlation	.177**	.087	-.063	-.058
	Sig. (2-tailed)	.000	.141	.190	.246
	N	436	291	430	400
Profitability	Pearson Correlation	1	.123*	.027	-.027
	Sig. (2-tailed)		.037	.579	.596
	N	437	289	423	398
Growth	Pearson Correlation	.123*	1	-.030	.006
	Sig. (2-tailed)	.037		.615	.924
	N	289	292	282	275
Liquidity	Pearson Correlation	.027	-.030	1	-.212**
	Sig. (2-tailed)	.579	.615		.000
	N	423	282	431	397
Asset Tangibility	Pearson Correlation	-.027	.006	-.212**	1
	Sig. (2-tailed)	.596	.924	.000	
	N	398	275	397	401
Firm Age	Pearson Correlation	.020	.028	.049	-.037
	Sig. (2-tailed)	.696	.631	.334	.473
	N	400	287	395	369

Correlations

		Firm Age
Short Term Debt	Pearson Correlation	.176**
	Sig. (2-tailed)	.003
	N	276
Long Term Debt	Pearson Correlation	-.230**
	Sig. (2-tailed)	.000
	N	292
Log Norm Size	Pearson Correlation	.304**
	Sig. (2-tailed)	.000
	N	408

Profitability	Pearson Correlation	.020
	Sig. (2-tailed)	.696
	N	400
Growth	Pearson Correlation	.028
	Sig. (2-tailed)	.631
	N	287
Liquidity	Pearson Correlation	.049
	Sig. (2-tailed)	.334
	N	395
Asset Tangibility	Pearson Correlation	-.037
	Sig. (2-tailed)	.473
	N	369
Firm Age	Pearson Correlation	1
	Sig. (2-tailed)	
	N	409

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

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Regression

Notes

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	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT STD /METHOD=ENTER lnSize Profitability Growth Liquidity Asset_Tan Age /SCATTERPLOT=(*ZRESID ,*ZPRED) /RESIDUALS DURBIN.
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Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
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a. Dependent Variable: Short Term Debt

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change				
1	.383[a]	.147	.120	.2235758	.147	5.522				

Model Summary[b]

Model	Change Statistics			
	df1	df2	Sig. F Change	D.Watsons
1	6	193	.000	1.744

a. Predictors: (Constant), Firm Age, Growth, Profitability, Liquidity, Asset Tangibility, Log Norm Size

b. Dependent Variable: Short Term Debt

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.656	6	.276	5.522	.000[b]
	Residual	9.647	193	.050		
	Total	11.303	199			

a. Dependent Variable: Short Term Debt

b. Predictors: (Constant), Firm Age, Growth, Profitability, Liquidity, Asset Tangibility, Log Norm Size

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
		B	Std. Error	Beta				
1	(Constant)	.826	.106		7.790	.000		
	Log Norm Size	.002	.007	.016	.229	.819		
	Profitability	-.005	.031	-.010	-.149	.882		
	Growth	-.002	.001	-.186	-2.789	.006		
	Liquidity	-.026	.010	-.180	-2.651	.009		
	Asset Tangibility	-.246	.064	-.262	-3.831	.000		
	Firm Age	.003	.002	.119	1.632	.104		

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Log Norm Size	.896	1.116
	Profitability	.987	1.013
	Growth	.991	1.009
	Liquidity	.961	1.041
	Asset Tangibility	.945	1.058
	Firm Age	.832	1.203

a. Dependent Variable: Short Term Debt

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Log Norm Size	Profitability
1	1	4.200	1.000	.00	.00	.00
	2	.994	2.055	.00	.00	.75
	3	.909	2.150	.00	.00	.23
	4	.488	2.933	.00	.00	.01
	5	.304	3.720	.00	.00	.01
	6	.094	6.697	.05	.07	.00
	7	.012	18.563	.95	.93	.00

Collinearity Diagnostics[a]

Model	Dimension	Variance Proportions			
		Growth	Liquidity	Asset Tangibility	Firm Age
1	1	.01	.02	.01	.01
	2	.19	.00	.00	.00
	3	.79	.01	.00	.00
	4	.01	.86	.05	.00
	5	.00	.10	.14	.60
	6	.00	.02	.75	.36
	7	.00	.00	.05	.02

a. Dependent Variable: Short Term Debt

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.431357	.902744	.708198	.0912239	200
Residual	-.6629270	.4592872	.0000000	.2201795	200
Std. Predicted Value	-3.035	2.133	.000	1.000	200
Std. Residual	-2.965	2.054	.000	.985	200

a. Dependent Variable: Short Term Debt

```
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  /DEPENDENT LTD
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Regression

Notes

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	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		REGRESSION /MISSING LISTWISE /STATISTICS COEFF OUTS R ANOVA COLLIN TOL CHANGE /CRITERIA=PIN(.05) POUT(.10) /NOORIGIN /DEPENDENT LTD /METHOD=ENTER lnSize Profitability Growth Liquidity Asset_Tan Age /SCATTERPLOT=(*ZRESID ,*ZPRED) /RESIDUALS DURBIN.
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Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	Firm Age, Growth, Liquidity, Profitability, Asset Tangibility, Log Norm Size[b]	.	Enter

a. Dependent Variable: Long Term Debt

b. All requested variables entered.

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change				

1	.348[a]	.121	.096	.2308115	.121	4.756				

Model Summary[b]

Model	Change Statistics			Durbin Watsons
	df1	df2	Sig. F Change	
1	6	207	.000	1.588

a. Predictors: (Constant), Firm Age, Growth, Liquidity, Profitability, Asset Tangibility, Log Norm Size

b. Dependent Variable: Long Term Debt

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.520	6	.253	4.756	.000[b]
	Residual	11.028	207	.053		
	Total	12.548	213			

a. Dependent Variable: Long Term Debt

b. Predictors: (Constant), Firm Age, Growth, Liquidity, Profitability, Asset Tangibility, Log Norm Size

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients				
		B	Std. Error	Beta	t	Sig.		
1	(Constant)	.453	.109		4.169	.000		
	Log Norm Size	-.002	.008	-.018	-.260	.795		
	Profitability	-.026	.029	-.059	-.887	.376		
	Growth	.002	.001	.136	2.050	.042		
	Liquidity	.029	.007	.257	3.858	.000		
	Asset Tangibility	.072	.066	.075	1.083	.280		
	Firm Age	-.006	.002	-.207	-2.864	.005		

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		

	Log Norm Size	.884	1.131
	Profitability	.953	1.049
	Growth	.967	1.034
	Liquidity	.958	1.044
	Asset Tangibility	.890	1.123
	Firm Age	.813	1.230

a. Dependent Variable: Long Term Debt

Collinearity Diagnostics[a]

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions (Constant)	Log Norm Size	Profitability
1	1	4.101	1.000	.00	.00	.00
	2	1.086	1.943	.00	.00	.48
	3	.880	2.159	.00	.00	.43
	4	.528	2.788	.00	.00	.05
	5	.310	3.636	.00	.00	.03
	6	.083	7.032	.05	.07	.00
	7	.012	18.775	.95	.93	.00

Collinearity Diagnostics[a]

Model	Dimension	Variance Proportions Growth	Liquidity	Asset Tangibility	Firm Age
1	1	.00	.02	.01	.01
	2	.36	.01	.00	.00
	3	.52	.05	.00	.00
	4	.11	.84	.03	.00
	5	.00	.05	.15	.55
	6	.00	.03	.76	.42
	7	.00	.00	.06	.02

a. Dependent Variable: Long Term Debt

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.235500	.875200	.445453	.0844837	214
Residual	-.4144020	.6069312	.0000000	.2275374	214
Std. Predicted Value	-2.485	5.087	.000	1.000	214
Std. Residual	-1.795	2.630	.000	.986	214

a. Dependent Variable: Long Term Debt